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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,682	07/21/2003	Joseph A. King	5783	5313

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EXAMINER

TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,682

Applicant(s)

KING ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-20 is/are pending in the application.
4a) Of the above claim(s) 11 and 13-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 8-10 and 12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/27/06.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/27/2006 has been entered.

Response to Amendment

1. Amendment filed on 3/27/2006 has been entered. Claims 8-20 are pending in the application. Claims 11, and 13-20 are withdrawn from consideration as directed to a non-elected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 8, 9 stand rejected under 35 U.S.C. 102(b) as being anticipated by KR 8902848 and Minami (US 3,866,568) or Takahashi et al (US 5,567,539) for the reasons of record set forth in paragraph 8 of the Office Action mailed on 6/28/2005.

5. Claims 8-10 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78010390 (JP 53010390) for the reasons of record set forth in paragraph 9 of the Office Action mailed on 6/28/2005. Note that a film shaped device prepared by bonding silver-salt particles to an adhesive 22 applied to a flexible substrate 21 (See Fig. 6) is used for forming a water filtering system (See Figs. 3, 5; Translation, pages 7-8).

6. Claims 8, 9 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78020780 (JP 53020780) for the reasons of record set forth in paragraph 10 of the Office Action mailed on 6/28/2005.

7. Claims 8, 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over KR 8902848 in view of Oehler et al (US 5,820,927) for the reasons of record set forth in paragraph 11 of the Office Action mailed on 6/28/2005.

8. Claims 8-10, 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over KR 8902848/JP 780100390 (JP 53010390)/JP 78020780 (JP 53020780) in view of Rosenblatt (US 6,365,169) for the reasons of record set forth in paragraph 12 of the Office Action mailed on 6/28/2005.

9. Claim 10 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 78020780 (JP 53020780) for the reasons of record set forth in paragraph 13 of the Office Action mailed on 6/28/2005 because Translation of JP 78020780 shows that the silver-salt-containing powder (21) is bonded to a substrate 23 by means of adhesive (22) in such a way as to expose the powder as shown at Fig. 6 (See page 7, lines 10-16). Clearly,

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to expose the powder as shown at Fig. 6, the powder should be adhered to applied adhesive. Or it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied an adhesive to a substrate then a silver-salt-containing powder in JP 78020780 (JP 53020780) with the expectation of providing the desired exposed powder.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rouse et al (US 6238448) shows that terms “drying” and “curing” are used in the art interchangeably (See column 10, lines 2-3).

Response to Arguments

11. Applicants' arguments filed 3/27/2006 have been fully considered but they are not persuasive.

(A) Applicants submit that: (i) the reference of KR 8902848 is unclear whether the activated carbons are fusion bonded to the adhesive or the non-woven fabric itself. (ii) The references of Minami and Takahashi et al. each do not teach the step of applying metal ion yielding materials in particle form to an adhesive on a web.

As to (i), the translated text (See USPTO translation) describes the relevant part as follows: “When forming the filter 8, one side of the non-woven fabrics 11' and 11” is coated with an adhesive, and the adhesive-coated side is **fusion bonded to the activated carbon** to fix the activated carbon” (See page 4, lines 20-22). Oral translation by the Primary Examiner Tae Yoon confirms the USPTO translation. The translation sent by the Applicants describes that the adhesive is **spread on one surface** (note: NOT on one end of the fabric) of the unwoven fabrics (11') and (11”) and the adhesive-treated surfaces are set toward the **active end** (clearly, *active* carbon) and thermally fused, so that the *activated* carbons are fixed. It seems that the translation sent by the

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Applicants also confirms that the *activated* carbons and the fabrics are fixed by the adhesive because the adhesive is spread on a *whole* surface.

As to (ii), each of Minami and Takahashi et al is applied not for teaching the step of applying metal ion yielding materials in particle form to an adhesive on a web, but as evidence to confirm the Examiner' interpretation of a term "drying" of holt melt adhesive.

(B) The Applicant strenuously objects to the Office's use of the term "dried" as being interchangeable with the terms "cooled" and "cured." It is submitted for example that the "curing" or "cooling" of a substance may not be related or involve the "drying" of a substance.

The Applicant cannot strenuously object to the Office's use of the term "dried" because Applicants' specification does not define the term "drying" as being NOT interchangeable with the terms "cooled" and "cured". It is held that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

It is well known in the art that the term "drying" is used interchangeably with the terms "cooled" and "cured", as evidenced by US 6238448 to Rouse et al (See column 10, lines 2-3), Minami (See column 1, lines 14-18; column 2, lines 6-8; column 4, lines 26-27) and Takahashi et al (See column 20, lines 15-22). Therefore, the Office's broadest reasonable interpretation of the

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term "dried" is consistent with the Applicants' specification and is also be consistent with the interpretation that those skilled in the art would reach.

(C) Applicants note that (i) JP 78020780 does not call for the drying of JP 78020780's binder in order to adhere JP 78020780's sintered powder to JP 78020780's base plate. (ii) It is also noted that although the Applicant's specification describes the use of epoxy resin as an adhesive (see page 6, line 9), the Applicant's specification teaches on page 6, line 9, the drying of the epoxy resin to secure metal ion yielding particles. It is for the aforementioned that the Applicant submits that the reference of JP 78020780 does not teach the step of "... allowing the adhesive to dry to secure the metal ion yielding material to the web of material ..." as called for in Applicant's claims 8 and 9.

The Examiner respectfully disagrees with this argument.

As to (i), JP 78020780 discloses a sterilizing element for water purification apparatus (claimed filter) comprising adhering a water-insoluble silver salt containing powder to a flexible film with a **epoxy resin** binder (See Abstract). It is well known in the art that *resins* can be formulated either as water based or as solvent based. In both cases the epoxy resin binder should be dried to secure powder to the plate (note that adhesive of any kind should be dried (cooled, cured), as evidenced by JP 51067462 (See Abstract) or solvent removing to secure an object to a substrate). The specification as filed also describes the use of **epoxy resin** as an adhesive, which supposed to be dried to secure metal ion yielding particles (See page 6, line 9).

As to (ii), in contrast to Applicants statement, the Applicant's specification does NOT teach the **drying** of the epoxy resin on page 6, line 9, to secure metal ion yielding particles.

(D) The Applicant submits that Rosenblatt does not call for the drying or the curing of his PVA with the iodine applied thereto in order to secure the iodine to Rosenblatt's substrate.

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The Examiner respectfully disagrees with this argument. Rosenblatt teaches *curing* (setting) of his PVA with the iodine and other antimicrobial components in order to secure the iodine and other antimicrobial components to Rosenblatt's substrate (See column 8, lines 9). In other words, an adhesive together with iodine (which may not be in a particle form) may be used for securing *other antimicrobial* components in a *particle* form.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy
Primary Examiner
Art Unit 1762

April 10, 2006

ELENA TSOY
PRIMARY EXAMINER
ETsoy